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The Evening News

SAULT STE. MARIE, MICHIGAN SATURDAY, MARCH 5, 1960

Steinman Asks For Photo of Bridge Painting

On request from Dr. D. B. Steinman, Sault artist Oscar Vaher has sent him a photograph and color slides of his painting of the Mackinac Bridge.

Dr. Steinman had read about the painting and was "delighted to know that his Five Mile Dream' has been a source of inspiration" to Vaher, he said in a letter.

When he received Vaher's photograph and slides, he sent another letter saying he considered the painting beautiful and extending his compliments to the artist.

X-TG 140
.S8

Books

Parallel Reading for Consulting Engineers

David B. Steinman was born in the shadow of the Brooklyn Bridge and grew up to design another great structure, the Mackinac Bridge. His life has spanned three quarters of a century from the one bridge to the other and he has designed almost 400 bridges in between. *Highways Over Broad Waters,* by William Rattigan, is the story of these years, or better, the story of these bridges.

We follow Steinman through a precocious childhood, hawking newspapers on the bridge he loved, to City College of New York. Never satisfied with any grade less than perfect, his mind absorbed a myriad of subjects. He went on to Columbia, teaching and learning, earning his way with lecturing and scholarships, but always with engineering in his mind. His eye was always on the bridge. In order to secure his PhD he succeeded in having D. Van Nostrand publish his first book and, incidentally, his thesis, *Suspension Bridges and Cantilevers.*

When he was 25, he established a working relationship with Gustave Lindenthal, then the dean of American bridge builders. Soon the design of his first two bridges were under way. These were the Hell Gate Bridge over the East River and the Sciotoville Bridge over the Ohio. It was during this period that he realized the value of "financial engineering" and he developed the understanding of finance that enabled him to talk so convincingly to bankers.

After World War I, bridge engineering had a slight decline and again Steinman supplemented his income by teaching. Along with the regular courses in engineering subjects, he started the first course in Aeronautics ever taught in the U.S. His interest in this subject was to prove of great value later in developing his theory of aerodynamic principles as applied to suspension bridges. His Mackinac Bridge is the first bridge which has a critical wind velocity of *infinity.* Shortly after this teaching period, he set up the partnership which has lasted throughout his professional life. Holton D. Robinson was the other principal and their first job was the Florianapolis Bridge in Brazil.

Over the years many more bridges were to come from his drawing boards. His interest in the profession developed into an obsession and he was one of the leaders in establishing registration. He wrote the registration law for New York State which is the accepted model today. He continued to write and lecture, he edited engineering magazines and held office in practically all the civil engineering societies. Steinman is credited with over 500 technical articles and books. One of his proudest achievements outside of the field of engineering is his book about the Roeblings and the Brooklyn Bridge called *The Builders of the Bridge.*

A list of his patents and hobbies reveals the scope of his mind and his many nonengineering honors reveal the concentration he gives to his avocations. Steinman's patents on Stereo photography were sold to Hollywood and his color photographs have received many prizes. But the diversion which has absorbed him for the last few years is poetry.

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ENGINEERING NEWS-RECORD

. . . *International*

Pakistani Bridge to Carry Rail and Highway Traffic

Foundation work had begun on an 807-ft-span bridge that will carry rail and auto traffic over the Rohri Channel of the Indus River at Sukkur, West Pakistan. The new span will replace the present Lansdowne Bridge.

The spandrel-braced arch will rest on massive concrete abutments. A single track railway will be set in a concrete deck, which will also carry the auto traffic.

The $3.2-million construction contract went to Dorman Long Bridge and Engineering, Ltd. in association with Gammon Pakistan, Ltd. David B. Steinman of New York City is consulting engineer. Contract time is 20 months.

March 10, 1960

X-TG 140
.S8

Poets' Study Club Terre Haute - Indiana

April 6, 1960

My dear Dr. Steinman:

Since the arrival of SONGS OF A BRIDGE BUILDER, with your compliments, it has been read, re-read, read aloud and favorite poems chanted for memorizing. Finding BLUEPRINT included makes our Poetry Club very happy, indeed.

We find it refreshing to read poetry that communicates so readily, is so lyrical, and ranges with such human understanding from Hart Crane to the bewildered grand-daughter with her new baby brother. Not one note of cynicism mars the entire edition. The intimate, ANGEL, SIREN, WOMAN, persuaded us that you were a very genuine person. Then we found the list of your achievements inside the book jacket, and have just emerged from the state of consternation which that induced. All of our literature about the BRIDGE AT MACKINAC does bear your name, but we had no association for BLUEPRINT.

May we say that this discovery leaves us re-assured that world peace may be possible yet as long as these bridge builders, who can, thus carry on toward unity, and keep singing meanwhile?

Very sincerely yours,

Ruby Anne Bright

Ruby Anne Bright

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SPIRIT

A MAGAZINE OF POETRY

MARCH 1960

David B. Steinman is one of the world's most distinguished bridge-builders. From his designs, more than 400 water-spanning structures of imposing sweep, beauty and stability have been erected and put into commission on five continents of the globe. One of his masterpieces is the superb web of steel which recently linked the upper and lower peninsulas of Michigan. Presently on his drawing-boards are equally-bold structures to be built across the Sea of Bosporus and the Straits of Messina. But Dr. Steinman is more than a great engineer. He is a warm and dedicated human being, a gentle philosopher, a humanitarian and a poet. Endowed since early boyhood with a powerful attraction to the harmonious combination of utility and beauty which we call design, he has underpinned his exceptional skills with two unshakable supports: faith in God as the Designer supreme, and a profound conviction that the function of science is to serve man, not to enslave him.

These elements in Dr. Steinman's makeup are apparent in every word he writes, just as they impinge themselves upon every blueprint he completes and countersigns. Characteristic are the fifty-two poems grouped here as "Songs of a Bridgebuilder." They comprise a selection from the 150 or more short lyrics he has found time to put on paper in pensive hours away from the challenging encounter with compass, caisson and cable-drum. Many of them, here and there set off with chastely-etched illustrations, are in moods of reverence and aspiration. Most of them have appeared in periodicals and anthologies. In general, they do not have the tension, daring or technical perfection of his spun steel. But with the breath of a buoyantly religious spirit blowing through them, they do afford a harp-like accompaniment, as do his high-strung bridges, to the brave *laudate Dominum* of a modern David.

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Steinman Will Make Study Of Golden Gate Capacities

David B. Steinman, New York City consulting engineer, will conduct a four-month study to determine feasibility of running high-speed rapid transit vehicles across Golden Gate Bridge.

A rapid transit route between San Francisco and Marin County is a key link in the 125-mile, five-county rapid transit system proposed for the Bay Area.

ENGINEERING
NEWS-RECORD

January 21, 1960

X-TG140
S8

The New York Times.

NEW YORK, MONDAY, JANUARY 11, 1960.

COAST TEST BEGUN ON TRANSIT PLAN

Drills Begin Boring the Bed of San Francisco Bay— 4-Mile Tube Envisioned

SAN FRANCISCO, Jan. 9 — Preliminary work began this week on what engineers envision as "the key piece" of a vast rapid-transit network for the San Francisco Bay area.

From a barge anchored in the bay, drills started boring into the mud, clay and rock strata at depths ranging from 175 to 250 feet under water.

In nine of the submerged holes at various depths will be placed sensitive instruments known as "geophones." They are to be installed during the next five or six weeks to record earthquake vibrations along the proposed route of a four-mile-long tube that would carry rapid-transit trains between the San Francisco Peninsula and the East Bay area.

This tube, the construction of which was approved by the 1959 California Legislature, can assertedly be completed, along with the rest of the first phase of a bay area rapid-transit system, in about five years after funds are made available. One or two "ifs" stand in the way of actually starting construction.

Approval Is Conditional

The Legislature approved the $115,000,000 tube project provided that the voters of five counties supported by a two-thirds majority a bond issue of at least $500,000,000 for the building of feeder lines.

These would include such items as a subway under Market Street in this city and a rapid-transit line extending thirty-five miles south of Mountain View, below Palo Alto. Feeders over East Bay and one over the Golden Gate Bridge are also envisioned.

In anticipation of the operation of trains into Marin County, beyond the Golden Gate, the five-county Bay Area Rapid Transit District has engaged David B. Steinman, a New York bridge engineer, for preliminary study.

He will conduct a four-month investigation to determine whether it is feasible, from an engineering standpoint, to add rapid-transit facilities to the Golden Gate Bridge. John M. Peirce, general manager of the transit district, and his associates want to know whether two lanes of rapid transit could be installed without impairing the bridge's safety.

Costs Estimated

The cost of the project, under study for years as a means of keeping automobile traffic from completely paralyzing downtown San Francisco, has been estimated at up to $700,000,000.

The Legislature put an estimate of $84,000,000 on the tube itself. The remaining $31,000,000 in the $115,000,000 tube project is to cover the cost of approaches at both ends. The money is to come from surplus automobile tolls from the San Francisco-Oakland Bay Bridge.

The engineering feasibility of building the tube has already been established, according to Keneth M. Hoover, chief engineer of the rapid transit district

John O. Bickel, a partner in Parsons, Brinckerhoff, Quade & Douglas of New York, said the best depth at which to set it was still to be established. The tube is to be prefabricated in sections, ballasted and sunk into a trench.

The plan is to build a tube to withstand stresses as great as those imposed by the San Francisco earthquake of 1906.

It is the present intention to ask voters of San Francisco and neighboring counties to ballot on the $500,000,000 bond proposal next November.

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KINGS
COUNTY

PROFESSIONAL ENGINEER

JANUARY, 1960

STEINMAN HONORS ASSOCIATES

In recognition of their services rendered throughout the many years, Dr. Steinman has taken into partnership his associates, R. M. Boynton, C. H. Gronquist and J. London.

Starting with the new year the firm will operate under the name of Steinman, Boynton, Gronquist & London. *Further evidence of the human quality of this great engineer.*

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The Lyric

WINTER, 1960

THE CHALLENGE

Nature said: "You cannot."
  Man replied: "I can."
From shore to shore, above the tides,
  He built a gleaming span.

Nature said: "You dare not."
  Man replied: "I dare."
He launched his winged ship aloft
  And boldly sailed the air.

Nature said: "You shall not."
  Man replied: "I will."
He caged the thunderbolts of Jove
  And made them serve his skill.

Nature said: "You must not."
  Man replied: "I must."
He split the atom. Now he holds
  A godlike power in trust.

D. B. STEINMAN

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S8

GOLDEN ATOM

LIGHT-YEARS

Through cosmic space the lens on Palomar,
Scanning the aeons of galactic glow,
Descries the ancient flaming of a star
Whose rays ten million centuries ago
Commenced their journey with the speed of light,
At length impinging on our crystal prism,
Although the source may now be black as night
Or vanished in some titan cataclysm.

With powers wrested from the atom's core,
Our priests of science batter heaven's gate.
Who knows what doom will be the final score,
What holocaust or glory be our fate?
Upon some star a future eye may see
The light we beam into eternity.

—D. B. Steinman

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PENINSULA POETS

Hunter and Bird

As meteors burned before his eyes in wonder,
The small boy thought it not at all absurd
To fling him starward and to ride the thunder
And take allve the uncapturable bird.

Year upon year, pursuit; he almost touched
The flawless plumage he had sought from youth;
And when he died, men said, his fingers clutched
A single feather from the wings of truth.

— D. B. Steinman
in SPIRIT
(Winner of: The Carrie Blaine Yeiser Award)

Poetry Society of Michigan

Winter 1959-'60

X-TG140
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in the world of BOOKS

DAVID B. STEINMAN '06
Songs of a Bridge Builder (Eerdmans)
A collection of poems by a famous bridge engineer.

THE CITY COLLEGE ALUMNUS

JANUARY, 1960

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Men and Jobs

D. B. Steinman Raises Three to Partnership

Effective January 1, R. M. Boynton, C. H. Gronquist and J. London were taken into partnership by D. B. Steinman, consulting engineer, New York City. The new firm name will be Steinman, Boynton, Gronquist & London.

Each of the three new partners has been with Mr. Steinman for more than thirty years. They have participated in the design of such notable suspension structures as the Mackinac Straits Bridge, Michigan; Kingston-Rhinecliff Bridge over the Hudson River; Mount Hope Bridge, Rhode Island; and the Deer Isle-Sedgewick Bridge, Sargentville, Me. They also designed the Charter Oak Bridge, Hartford, Conn. and Quinnipiac River Bridge, New Haven, Conn., with long continuous plate-girder spans; the Henry Hudson Arch, New York City; and the Thousand Islands International Bridge, over the St. Lawrence River.

Mr. Boynton is a 1920 civil-engineering graduate of the University of Maine. He joined Mr. Steinman in 1928 after eight years with the Erie Railroad Co.

Mr. Gronquist received a B.S. in 1925 and an M.S. in 1927 from Rutgers. He joined Mr. Steinman in 1927.

Mr. London is a 1920 civil-engineering graduate of the College of the City of New York. He went with Mr. Steinman in 1922, after brief experience as a draftsman and instructor.

The Iron Mountain News

IRON MOUNTAIN - KINGSFORD, MICH., MONDAY, JANUARY 4, 1960

Approaches To Be Built For Bridge

LANSING (AP) — First contracts for the construction of approaches to the international bridge between the Michigan and Canadian cities of Sault Ste. Marie are expected to be let in April, the State Highway Department reported.

Appraisals have been completed on 50 parcels of land needed for the approaches and right of way land buying is expected to start in January.

The Michigan approaches to the planned 18 million dollar bridge will be located a little more than a mile west of the present ferry dock. It is estimated the approaches will cost more than three million dollars, including the cost of right of way and engineering.

"If we can get the right of way cleared, we expect to take bids on the substructure of the aproaches April 13 and have set July 13 as the date for placing the superstructure of the approaches under contract," reported Commissioner John C. Mackie.

The Ontario Highway Department will construct the approaches on the Canadian side and the center span of the bridge is expected to be financed by an international bridge authority as a toll facility.

David B. Steinman, designer of the Straits of Mackinac bridge, also designed the new bridge, to be 12,000 feet long. It is anticipated the contracts for the bridge proper will be let and construction will start some time this year. It is hoped to have the bridge opened for traffic by the end of 1961 or early 1962.

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BETHANY COLLEGE BULLETIN

Vol. LIII JANUARY, 1960 Number 1

Degree Of Doctor Of Humane Letters To Be Conferred On David Barnard Steinman, Bridge Builder And Poet

Dr. David Barnard Steinman

The faculty and trustees of Bethany College have voted unanimously to confer the honorary degree of Doctor of Humane Letters upon Dr. David Bernard Steinman, noted bridge builder, engineer and poet.

Dr. Perry Epler Gresham, President of Bethany College, announced that the L.H.D. degree will be conferred on Dr. Steinman May 7, 1960. Steinman will speak that day during a convocation which will be a part of the annual fine arts festival of the school.

Dr. Steinman, dean of American bridge builders, has designed and built more than 440 bridges on five continents, including Michigan's famous Mackinac bridge. More than 150 of his poems have been published in leading poetry magazines and in five anthologies.

"The faculty and board of trustees of Bethany College voted the honorary degree L.H.D. to Doctor Steinman on account of the fact that he exemplifies the academic ideals of Bethany College," Dr. Gresham said.

"He is one of the foremost engineers in the world who has the broad literary and cultural interests of a true product of the liberal arts and sciences. Doctor Steinman has achieved distinction as a great humanist.

"We hope this honorary degree conferred in the presence of all our students will inspire them to emulate his good example."

Dr. Steinman is now engaged on the world's first intercontinental bridge over the Bosporus, and also on bridges in Baghdad and Pakistan. He also designed and planned the new 12,000-foot international bridge over the St. Marys River at Sault Ste. Marie, Mich., and its Canadian counterpart.

Dr. Steinman holds honorary degrees from two of the oldest and most distinguished schools in the world, the University of Bologna in Italy and the University of Paris in France. He received the B.S. degree summa cum laude from the College of the City of New York, the M.A. and the Ph.D. degrees from Columbia University.

He is the author of 24 books, including "Famous Bridges of the World," "Mackinac Straits Bridge," "Suspension Bridges," and "Song of a Bridge Builder." He has written 600 professional articles.

Dr. Steinman has received more than 50 prizes, awards and honors for poetry. He is a life member and a former trustee of the Poetry Society of America.

The BROOK

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FRIDAY MARKET

YOU WORE A WHITE GARDENI

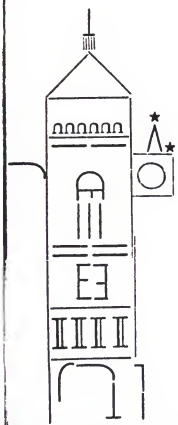
D. B. STEINMAN

I met you in a garden by the sea;
With pulses pounding, I beheld you there.
Your loveliness was like a melody:
You wore a white gardenia in your hair.

My heart was singing with a strange delight;
To all the gods of love I made my prayer.
My dreams embraced you through the starry night,
A fragrant white gardenia in your hair.

All else about the distant scene is dim,
All save the moonlight magic in the air;
One memory still lingers like a hymn:
A white gardenia star-like in your hair.

A lighted candle burning through the years,
I feel your glowing presence everywhere;
In lonely nights I see you through my tears:
You wore a white gardenia in your hair.



Poetry, for Dr Steinman, is a recent hobby. When people, here and abroad, wrote to him 'Your bridges are poems', he was inspired to take the next step. In addition to putting poetry into bridges, he is now putting bridges into poetry.

Dr Steinman's poems are noted for their spiritual inspiration as well as for their singing, lyrical quality. A number of them have already been set to music. — *Press notice*, Songs of a Bridgebuilder *by D. B. Steinman, Wm B. Eerdmans Publishing Co, Grand Rapids, Michigan.*

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Consulting Engineer

Feb. 1960

D. B. Steinman, Consulting Engineer, has taken into partnership his associates R. M. Boynton, C. H. Gronquist, and J. London. These associates have been with Dr. Steinman for over 30 years and have been identified with him in the design and construction of over 400 bridges. The firm name has been changed to Steinman, Boynton, Gronquist & London, Consulting Engineers.

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90TH YEAR

Midwest Engineer

Engineer Sponsors Chosen For 1960 Engineers' Week

Thirteen leading engineering figures will act as sponsors for the 1960 National Engineers' Week, February 21-27.

They are: Wernher von Braun, director, Development Operations Division, Army Ballistic Missile Agency; Allen B. DuMont, chairman of the board, Allen B. DuMont Laboratories, Inc.; T. Keith Glennan, president-on-leave, Case Institute of Technology, and administrator, National Aeronautics & Space Administration; James R. Killian, Jr., chairman of the Corporation, Massachusetts Institute of Technology; Clarence H. Linder, vice president, General Electric Company; Granville M. Read, chief engineer, E. I. du Pont de Nemours and Company; Royal W. Sorensen, California Institute of Technology; Philip Sporn, president, American Electric Power Company; David B.; Steinman, consulting engineer; Bertram D. Tallamy, Federal Highway Administrator; Charles Allen Thomas, president, Monsanto Chemical Company; John L. Burns, president, Radio Corporation of America, and A. V. Wiebel, president, Tennessee Coal & Iron Division, United States Steel Corporation.

The theme for the 1960 observance is "Engineering' Great Challenge . . . The 1960's." The week is under the general sponsorship of the 53,000-member National Society of Professional Engineers.

FEBRUARY 1960

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Metropolitan & Northern New Jersey

Published jointly by the Metropolitan and the Northern New Jersey Sections

BULLETIN

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

MARCH, 1960

THE ENGINEER'S BOOKSHELF

HIGHWAY OVER BROAD WATERS – THE LIFE AND TIMES OF DAVID BARNARD STEINMAN By William Ratigan

In the midst of our present struggle for technical supremacy, a biography of the life and times of Dr. David B. Steinman, genius bridgebuilder, and above all, humanitarian, has been written by William Ratigan. Here is the saga of an aesthetic engineer who designed his bridges as a bard composes his poetry, combining beauty and meaning.

Born of poor immigrant parents on Manhattan's lower "East Side", once again we have undeniable proof of the strength and opportunity that is America, "Steam Engine" Steinman tasted the bitter fruits of depression and economic despair before he was able to reach the heights of world achievement and renown.

From the building of his first bridge at Camp "Laff-A-Lot" to the completion of the "Big Mack" across the Mackinac Straits in 1958, the Brooklyn Bridge built by the Roeblings has ever been his inspiration. His Sciotoville Bridge across the Ohio River completed in 1917 was the start of a new type of continuous bridge which embodied many novel and original features of construction. He has received nine honors and awards for the most beauriful bridges in America. Of the more than 400 bridges he has built all over the world, only one is no longer in existence today. It took dynamite and large charges of Thermit to demolish it after having served its purpose at the Chicago's Century of Progress Exposition in 1934.

D.B., as he is known to his associates and friends, has rendered more than lip service to his chosen profession. His lifelong motto has been "Every man is a debtor to his profession." His unswerving goal has been a continuous selling campaign to the general public to make them aware of the worth of the engineer and his contributions to human progress and welfare. Dr. Steinman wrote the engineers' Registration Law for the State of New York which later became the model for the other states to follow. He has extended the helping hand to engineering students in the form of scholarships, grants and pledges in the amount of almost half a million dollars.

Because I feel this book has such a deep inspirational message to the youth of America at this particular time, I urge every parent and teenager to read it and to place it as a "must" on the bookshelf.

Reuben Krieg

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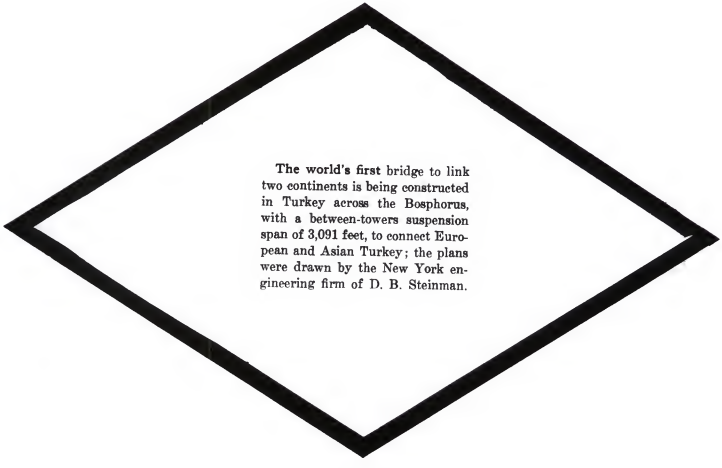
EXPORT TRADE



The world's first bridge to link two continents is being constructed in Turkey across the Bosphorus, with a between-towers suspension span of 3,091 feet, to connect European and Asian Turkey; the plans were drawn by the New York engineering firm of D. B. Steinman.

FEBRUARY 22, 1960

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MENOMINEE
HERALD-LEADER

JANUARY 8, 1960

Big Mac Poses For Sault Artist

SAULT STE. MARIE — Oscar Vahar, a Sault portrait painter, was especially interested when the plans for "Mighty Mac" were advanced.

Mighty Mac, the big Straits of Mackinac Bridge, is one of the world's great engineering feats, linking Michigan's two peninsulas across one of the stormiest bits of water in the world.

Vahar, who has lived here the past 35 years, was interested because the span was being built only 50 miles away and also because he knew the history of the dream that became the bridge.

He, too, began to dream and from his dream has come his painting—into which he poured three years' work—of the bridge as it now looks.

For the past century or more, visitors and residents of the area mused over the possibility of tying the Upper Peninsula to the rest of Michigan with a bridge.

The economic effect of the bridge was another leading reason for the choice of the bridge as a subject for a painting.

The engineering skill which had to be marshalled in the work was

If the concept of the engineer-designer was to be fulfilled, tremendous feats of engineering had to be performed. This resulted in miracles becoming common-place.

To produce the painting of the bridge demanded innumerable hours of sketching as the work progressed. Vahar spent much time at the project, following each step of the construction.

But equally important was the concept that a bridge could be beautiful as well as functional. This naturally had a strong appeal to the artist.

The artist's faith in this element was well-founded—the five-mile long Mackinac Bridge has won a beauty contest.

It has been termed "America's most beautiful bridge" in Class 1 of a contest sponsored by the American Institute of Bridge Construction.

Designer of the span was Dr. David B. Steinman; the associate engineer, Dr. Carl Gronquist; the builder was the American Bridge Division of U.S. Steel Corp.

The bridge was opened to traffic before completion of the painting on Nov. 1, 1957. The official opening ceremonies took place the following summer. The bridge, in-

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Centennial year

Sturgis Journal

STURGIS, MICHIGAN, FEBRUARY 17, 1960

Mackinac Bridge Called New Northwest Passage

When it opened Nov. 1, 1957, Michigan's breath-taking Mackinac bridge was hailed by Gov. G. Mennen Williams as "a modern Northwest Passage."

Indeed, the giant bridge has stimulated a greater flow of long-distance travel through Michigan to the Rocky Mountain and Pacific states and to the Canadian provinces.

But in far greater measure it has opened new avenues of commerce and tourist travel between upper and lower Michigan and between Michigan and its immediate neighbors in the north central region.

Four years in the building and costing almost $100 million, the Mackinac bridge (pronounced Mack-in-aw) emerged in 1957 as one of the greatest of the man-made wonders of the world . . . an artistically impressive million-ton combination of steel and concrete linking the upper and lower peninsulas of Michigan.

Measured between its enormous cable anchorage blocks—each of them about a third of a football field in size — it is the world's longest suspension span . . . 8,614 feet.

Including its approaches, it is five miles long . . . 26,372 feet to be exact . . . and cuts what was once a minimum crossing time of one hour on the ferries between Mackinaw City and St. Ignace to minutes.

During its first 12 months of operation, the four-lane structure carried 1,411,500 vehicles . . . 54 per cent more traffic than the ferries transported across the Straits of Mackinac the year before.

Century-Old Dream

Its erection fulfilled a century-old dream of northern Michigan travellers for a bridge across the turbulent straits.

The Mackinac bridge is Michigan's only domestic highway toll route. Its operators — the Mackinac Bridge Authority, created by the 1950 legislature — believe it will attract enough traffic to repay its $99,800,000 revenue bond issue in 25 to 30 years . . . after which toll charges will either be eliminated or sharply reduced to cover only the cost of maintenance.

In the first eight months of 1959, the bridge drew 30 per cent more trucks and other commercial vehicles than in the same period the year before . . . indicative of the stimulating effect the span is having on the state's commercial development.

The story of the Mackinac bridge is told only in the superlatives matching the relentless determination of generations of Michigan people to unite their two great peninsulas no matter what the financial cost nor the engineering difficulty.

Its ivory-colored suspension towers . . . standing 552 feet above water, higher than the Penobscot building in Detroit, Michigan's tallest skyscraper . . . are 3,800 feet apart, astride a gorge in the straits 295 feet deep.

While the central span between the towers is slightly shorter than that of the Golden Gate bridge, Mackinac's 8,614 feet between the massive concrete cable anchorages make it the world's longest suspension bridge.

From their rock foundations to their tip, the cable towers are 762 feet high . . . and each contains 6,500 tons of steel. Above water they rise as high as a 46-story office building . . . and almost as high as the 555-foot Washington Monument.

Leading to the suspension span itself are 26 truss spans, ranging in length from 160 to 560 feet . . . making a total expanse of 19,243 feet (more than 3½ miles) of steel superstructure.

The bridge arches gracefully over the straits, allowing 155 feet of clearance at midspan for the largest ships to pass safely beneath. At that point, the roadway of the span is 199 feet above water.

Weighs 86,500 Tons

The two suspension cables — 68 feet apart — are more than two feet in diameter (24⅛ inches), fabricated of 42,000 miles of wire . . . enough to reach one and two-thirds times around the equator. The cables weigh 11,840 tons.

Weight of the superstructure is 66,500 tons . . . and of the foundations and superstructure together, 1,024,500 tons.

The concrete blocks in which the suspension cables are anchored are each 135 feet long and capable of resisting 30,000 tons of pull from the two cables which support the main span.

Each of the anchorage blocks contains more than 85,000 cubic yards of concrete — enough to build 26 miles of two-lane pavement. More than 466,300 cubic yards of concrete went into the entire structure, for a total of 931,000 tons of concrete.

The four-lane bridge has a 48-foot-wide roadway, with opposing traffic separated by a raised center mall two feet wide. At the permitted speed of 45 miles an hour, it is capable of handling 3,000 cars an hour . . . and if used to capacity could accommodate in one week the volume of traffic carried during an entire year on the ferry fleet which the bridge replaced.

The bridge is designed to withstand wind velocity of 632 miles an hour . . . far more than has ever been recorded at Mackinac . . . and is engineered to resist ice pressures greatly in excess of anything known or considered possible at the straits. Some 85,000 blueprints and 4,000 engineering drawings were used in its construction, guiding the work of the 10,350 men employed on the project at the bridge site and in the quarries, shops, mills and other supply points.

The 10-minute bridge crossing brings Michigan's two peninsulas about 150 miles closer together in driving time . . . for, when ferries were in use, it was customary to have to wait a considerable time for a crossing. At times during the deer hunting season, traffic waiting to board the ferries was lined up for 17 miles.

Despite the immensity of the job, construction proceeded on schedule during the four-year building period, and the bridge was opened to traffic Nov. 1, 1957, the date announced before the project started. It was formally dedicated in elaborate ceremonies June 25-28, 1958.

Its designer and chief engineer, Dr. David B. Steinman, says the Mackinac bridge should remain serviceable for at least a century.

In 1959 the American Institute of Steel Construction designated the structure as "America's most beautiful bridge."

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X-TG-14C
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JOURNAL
OF THE
AMERICAN
CONCRETE
INSTITUTE

Steinman takes associates into firm partnership

D. B. Steinman, consulting engineer, New York, has taken into partnership his associates R. M. Boynton, C. H. Gronquist, and J. London. These associates have been with Dr. Steinman from 31 to 38 years, and have been identified with him in the design and construction of over 400 bridges including some of the world's most notable structures.

The new firm will operate under the name of Steinman, Boynton, Gronquist and London, Consulting Engineers.

Feb. 1960

X-TG140
S8

The BROOKLYN ENGINEER

ACCOMPLISHMENT

March, 1960

X-TG440
.S8

The Evening News

SAULT STE. MARIE, MICHIGAN FEBRUARY 5, 1960

Two Steinman Biographies Are Announced

The William B. Eerdmans Publishing Company, Grand Rapids, Michigan, announces the publication of a new book "Highways over Broad Waters: Life and Times of David B. Steinman, Bridgebuilder." The author is William Ratigan, who has produced a series of historical novels and biographies.

This book is the story of a boy's dream and how, by faith, character and talents, he overcame all obstacles and made his dream come true. As a seven-year-old newsboy, pointing up to the Brooklyn Bridge, he confided to other newsboys:' "Some day I'm going to build bridges like that!"

In the words of reviewers: "This work is indeed a glorious account of the faith, perseverance and gifts of a Master Bridgebuilder." "What a saga and what nostalgic memories! As a success story of a little boy starting from scratch, it should be in every library as a stimulus and inspiration for the young." "This is a fine record of a life devoted to the engineering profession and to the public good." "A fascinating story of the accomplishments of one of our most outstanding engineers."

A few months earlier, another book by the same publisher and the same author was published: "The Long Crossing: The Story of the World's Greatest Bridge and the World's Most Famous Bridgebuilder." This is a condensed biographical story of Dr. Steinman, written for younger readers.

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MAI 1960

JOURNAL
OF THE
AMERICAN
CONCRETE
INSTITUTE

Steinman awarded 21st honorary degree

David B. Steinman, internationally eminent bridge engineer of New York City, was recently awarded his 21st honorary degree.

The honorary degree of Doctor of Fine Arts was conferred upon Dr. Steinman at the formal convocation in May of the Spring Arts Festival at Bethany College in West Virginia. The degree is in recognition of his achievements as a poet and as a builder of beautiful bridges. Nine of Dr. Steinman's bridges have been honored in the annual awards for the most beautiful bridges in America.

JULY, 1960

NEW YORK STATE CITIZENS COMMITTEE
FOR THE PUBLIC SCHOOLS, INC.
2 West 45 Street
New York 36, New York

Telephone: OXford 7-7420
Violet Edwards, Executive Director

For Release: IMMEDIATE

DAVID B. STEINMAN, CONSULTING ENGINEER, HAS BEEN APPOINTED CHAIRMAN FOR THE ENGINEERING PROFESSION IN THE 1960 VOLUNTEER FUND RAISING CAMPAIGN FOR THE NEW YORK STATE CITIZENS COMMITTEE FOR THE PUBLIC SCHOOLS.

Like other prominent men serving in like capacities throughout New York State, Dr. Steinman will seek the support of his industry for the Citizen Committee's statewide educational program. Formed eight years ago, the Committee, with headquarters at 2 West 45 Street in New York City, is a non-profit organization. Through field services and an information exchange program the Committee helps almost 2,000 local citizen school groups in the state work to strengthen their school programs. It also aids citizens councils of other states.

Dr. Steinman, internationally eminent engineer of over 440 bridges on five continents, has achieved recognition as an engineer, scientist, mathematician, artist, inventor, bridgebuilder, educator, lecturer, author, poet and humanitarian. His life and work have been an inspiration to thousands of young engineers and engineering students not only in America but throughout the world. Particularly outstanding in his long record of service to education was his establishment of the David B. Steinman Foundation for grants to education, for research and for student aid, a foundation of which he is president.

Honored with twenty-six academic degrees - four earned and twenty-two honorary - and 350 awards and citations, including the French Legion of Honor, Dr. Steinman holds membership in over 200 organizations -- professional, scientific, civic and honorary -- in this country and abroad. His home and his office in the firm of Steinman, Boynton, Gronquist and London are in New York City, but he is a registered Professional Engineer in 25 states and foreign countries.

KINGS COUNTY

PROFESSIONAL ENGINEER

Published by the Kings County Chapter

of the

NEW YORK STATE SOCIETY OF PROFESSIONAL ENGINEERS

Incorporated

JUNE, 1960

DR. STEINMAN AGAIN HONORED

At the formal convocation May 7 of the Spring Arts Festival at Bethany College in West Virginia, the honorary degree of Doctor of Fine Arts was conferred upon David B. Steinman, internationally eminent bridge engineer of New York City. This degree brings Dr. Steinman's total to twenty-five and is in recognition of his achievements as a poet and as a builder of beautiful bridges. Nine of Dr. Steinman's bridges have been honored in the annual awards for the most beautiful bridges in America.

ENQUIRER AND NEWS
BATTLE CREEK, MICHIGAN
MONDAY, JUNE 6, 1960

Speaker Detained

'Faith of a Bridge Builder' Read to Albion Graduates

ALBION — "In every dedicated work of man, whether it be a humble labor or an inspired achievement, we are doing God's work." This was the thought of Dr. David Barnard Steinman, whose message to Albion college graduates was read at this morning's commencement exercises in Goodrich chapel on the Albion campus by President W. W. Whitehouse of the college.

Dr. Steinman, the designer of the Mackinac bridge, was prevented by sudden illness from leaving his home in New York to deliver his own address on "The Faith of a Bridgebuilder."

'Cooperating with God'

With 440 bridges on five continents to his credit, he had written, "As an engineer — a designer and builder of bridges — I have been helped by the feeling that I have been cooperating with God: overcoming barriers, conquering destructive forces and building links of friendship and peace between communities and nations.

"When people ask me why I consider it so important to make bridges beautiful, my answer is very simple. I say, 'God made the world beautiful. We have no right to mar it and deface it with works of ugliness.'

The great masterbuilders who preceded us dreamed their dreams and wrought their dreams, giving health, strength and even life itself as the price of achievement. Profiting by our heritage from the pioneers, we are tackling even greater tasks. Whatever we may accomplish will in turn be eclipsed by those who follow after us. In whatever we do and build beyond the stone and the steel, the calculations and the plans, the one priceless ingredient is the spirit of consecration."

Following the reading of Dr. Steinman's address, the bachelor of arts degree was conferred on 258 young men and women by President Whitehouse.

X-TG140
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THE AUSTRALASIAN ENGINEER

February, 1960

INDUS RIVER BRIDGE, PAKISTAN

By Dr. D. B. Steinman

The new railroad bridge over the Indus River, near Sukkur in West Pakistan, will be the longest railroad arch span in Asia and the third longest in the world (exceeded only by the Hell Gate Arch and the Sydney Harbour Bridge).

The new bridge will be a steel trussed arch with a span of 807 feet between end pins of bottom rib. The rise of the bottom rib is 180 feet and the distance between ribs of the crown is 24 feet, making the total height of structure 204 feet.

The new bridge is to be constructed 100 feet downstream from and will replace the seventy-year-old Lansdowne Bridge for railway traffic. The old structure, a famous cantilever bridge built in 1889 by Sir A. M. Rendel will be converted to highway use after the arch bridge is completed.

The plans for the new bridge were completed in 1959, and construction is scheduled for completion in 1961.

X-TG140
.S8

Wheeling
World-wide News and Pictures

News-Register
Neighborhood News of a 250,000 Community

WHEELING, W. VA., TUESDAY EVENING, APRIL 26 1960

Many Features in Program

Fifth Spring Festival At Bethany May 6-8

The Fifth Annual Spring Festival will be held May 6-8 at Bethany College.

A concert will be presented by the male chorus, under the direction of Professor George Hauptfuehrer, at 8:30 p.m. May 6.

Earlier, the three-day program will begin with a movie, "Mackinac Bridge Diary," at 7:30 p.m. May 6. The film depicts the story of the planning and building of the bridge over the Straits of Mackinac in northern Michigan. The bridge was designed by Dr. David B. Steinman.

Dr. Steinman, the noted bridge builder, will speak at a formal convocation at 11 p.m. May 7, on "The Three Dimensions of Man." Bethany will confer the honorary degree of Doctor of Fine Arts on Dr. Steinman.

A tea to mark the opening of the art exhibit will be at 1:30 p.m. May 7. Chairman of the exhibit is Professor Kent K. McAlexander.

Art prizes for the spring festival will be the Eleanor G. Caldwell award and the Mr. and Mrs. Jack N. Berkman award.

A concert of students and faculty composers will be at 3:30 p.m. that day.

Dido and Aeneas, an opera by Henry Purcell, and Riders to the Sea, a play by John Millington Synge, will be presented at 8:30 p.m. May 7. They will be directed and staged by Dr. Dale A. Jorgenson and Professor John Babington.

The mother's day activities will begin with worship at 10:45 May 8 at Bethany Memorial Church. The speaker will be Robert Lemon. Parents will attend services with the college students.

President and Mrs. Perry Gresham will be hosts at a tea at 3 p.m.

There will be a Greek Sing at the Outdoor Amphitheatre. Martha Wagner is president of the Pan-Hellenic Council and Glenn Reddington is president of the Interfraternity Council.

In concluding the three-day program, the 35 - member Bethany College concert choir will present a concert under the direction of Professor Jorgenson.

X-TG1A6
.S8

CHICAGO'S AMERICAN

TUESDAY—APRIL 5—1960

Loyola Offers Pulitzer Author

Pulitzer prize winner Robert Penn Warren will read and comment on his work tomorrow at Loyola university's fifth and last David B. Steinman lecture for 1959-60. The program, scheduled for 8 p. m. in the Grand ballroom of Lewis towers, is free and open to the public.

. 58

Consulting Engineer

Connecticut Bridge Job

The firm of Steinman, Boynton, Gronquist & London has been retained by the State of Connecticut for the survey and design of an eight mile stretch of new express highway passing through Cheshire, Southington, and Meriden. The contract requires a total of 54 bridges, including eight stream crossings, 42 grade separations, and four pedestrian overpasses.

In the town of Meriden, the route will wind through the hills of Hubbard Park. A wide median of variable width will permit each roadway to follow the contours without marring the beauty of the park. Structures in this area will be given special architectural treatment to harmonize with the surroundings. Present plans call for a four-lane, divided highway. ▲▲

May 1960

X-TG140
.S8

The Wheeling Intelligencer

Monday, May 16, 1960

Dr. Steinman Gives Bethany $10,000

Dr. David B. Steinman, of New York City, dean of the American bridge builders and a noted poet, is contributing an initial gift of $10,000 to Bethany College to start an endowment for the establishing of an annual poetry lectureship. The new program will be known as the David B. Steinman Poetry Lectureship, Dr. Perry E. Gresham, College President, announced today.

Dr. Steinman delivered an address on "The Three Dimensions of Man" at a special convocation during the annual spring arts festival May 7 at the College. Dr Steinman's interest in Bethany was developed through his lifelong friendship with Junius T. Moore, structural engineer, from Charleston, W. Va.

The poetry lectureship will bring the leading contemporary poets to Bethany College.

The income from the endowment will be supplemented by current funds to begin the lecture series in the academic year of 1960-61, Dr. Gresham said.

In announcing the gift. Dr Steinman said that poetry and art are potent forces in civilization. The spiritual dimension and art and science make for high quality education and a tradition to be prized and cherished. Dr. Steinman said,

Dr. Steinman has designed and built more than 440 bridges on five continents, including Michigan's famous Mackinac bridge. He is now engaged in building the world's first intercontinental bridge over the Bosporus, and also on bridges in Baghdad and Pakistan.

X-TC 140
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#290

Watertown Daily Times

WATERTOWN, N. Y., MARCH 14, 1960

FICTION IS HELD GREAT PLEASURE

Canton, March 14.—"Fiction Is one of the great pleasures of life," Sean O'Faolain told a St. Lawrence university audience here yesterday afternoon. The noted Irish critic, short-story writer and novelist, spoke on "The Pleasures of Fiction" as part of the third annual David B. Steinman festival of the arts.

There are many kinds of pleasure to be derived from fiction, Mr. O'Faolain pointed out. Among them are the pleasure of self-identification, pleasure of recognition, pleasure of excitement, pleasure of humor, and the pleasure of escape, he said.

Mr. O'Faolain listed six novels from which he has received "unalloyed pleasure." They are Malroux's "Man Fate," Joyce's "Portrait of the Artist as a Young Man," Dclaclos' "Dangerous Reltaions," Prevost's "Manon Lescaut," Turgenev's "Torrents of Spring" and Elizabeth Bowen's "Death of the Heart." These are novels, he added, that deal with the "implicit" rather than the "explicit" — they are novels of "depths" and "resonances."

The Steinman festival, which began last Tuesday, continues through Wednesday. The final major event is the festival concert tomorrow evening at 8:15 in Gunnison Memorial chapel.

X-TG140
.S8

Consulting Engineer

March 1960

Golden Gate Bridge Study

The firm of David B. Steinman has been selected for a $50,000 study to determine whether the Golden Gate Bridge can carry rapid transit trains without impairing its safety. Awaiting the results of this study is a contemplated $500 million bond issue referendum to expand the area's public transportation system.

X-TG140
.S8

American Engineer

JUNE 1960

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
FOUNDED 1934

X-TG140
.A3

BARDIC ECHOES

April 1960

I BUILT A BRIDGE

I built a bridge across the tide
  To reach a long-dreamed goal;
And there, beside a woodland stream,
  God's peace restored my soul.

I built a bridge across a vale
  To reach a flower-strewn slope;
My plan was traced as sunbeams wove
  A rainbow arch of hope.

I built a bridge across a gulf
  To reach my fellow man;
With heart aglow he came halfway
  And helped me build the span.

I built a bridge across the years
  To reach tranquility:
I did not know how beautiful
  The last of life could be.

I built a bridge across the dark
  To reach the unknown shore,
And there I found supernal love
  And peace forevermore.

-- D. B. Steinman, New York.

X-TG140
.S8

Cable-supported cantilever design loses out to . . .

AN ENGINEERING NEWS RECORD REPRINT

. . . conventional suspended span in contract award for . . .

Europe's Longest Suspension Span

The Portuguese government has approved a provisional award for a suspension bridge over the Tagus River at Lisbon to United States Steel Export Co. of New York City. With a central span of 3,317 ft, it will be Europe's longest suspension bridge. Value of the award is placed at $61,740,000.

Fabrication of the principal structure will be by American Bridge Division of U. S. Steel Corp. Main bridge piers will be built by Morrison-Knudsen Company, Inc., Boise, Idaho. D. B. Steinman, New York consultant designed the bridge. Other leading contractors and engineers will participate as suppliers, subcontractors or consultants.

Financing of the project will come entirely from outside Portugal, with loans to be made by the Export-Import Bank and by Seligman & Cie of Paris. The latter will participate to the extent of 85 million new French francs ($17.-347,000), which will be used for local expenditures in Portugal.

Announcement of the provisional award climaxes competition (first announced in April, 1959) to design, build and finance the bridge. In addition to the U. S. Steel combination, three groups submitted proposals to the Portuguese government. The other three bidders were Demag of Germany, which stipulated that the Portuguese government would have to finance the work; Krupp of Germany, with Merritt-Chapman & Scott Corp., contractors; and Parsons, Brinckerhoff, Quade & Douglas as engineers; and with financing sought through Blythe Bros. Co.; and a Portuguese firm (Socieda Atlantico Portuguese de Empreesamentos y Expanso Economica) with international participation and backing.

The latter combine submitted the apparent low proposal (ENR Mar. 24, p. 146) for a structure incorporating four cable-supported balanced cantilevers placed end-to-end. American firms involved in that proposal included Moran, Proctor, Mueser & Rutledge, New York City; Richardson, Gordon & Associates, Pittsburgh; and Ammann & Whitney, New York City.

The U. S. Steel group will build a conventional suspension bridge with a total length of 6,397 ft. Each side span will be 1,540 ft long. The two towers will be about 755 ft above their rock foundations, and some 626 ft above mean water level. Minimum clearance at midspan will be about 230 ft. The bridge will carry four lanes of highway traffic, with a center dividing strip and a sidewalk on either side.

In addition to the bridge itself, the contract calls for approach structures and roads on both sides of the river. Total viaduct length is expected to be about 3,445 ft, with an additional 8.6 miles of approach roads.

Under the terms of the provisional award, U. S. Steel Export Co. has a maximum of 300 days to present its final proposal. The final contract will then be signed and will call for the bridge to be completed within 4½ years. The final proposal is expected to provide for future railroad traffic.

X-TG140
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1960

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X-TG140
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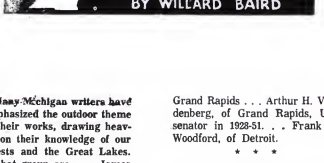
PORT HURON TIMES HERALD

PORT HURON, MICHIGAN, TUESDAY, APRIL 12, 1960



American literature is greatly enriched by the works of numerous authors and poets who were born or lived in Michigan.

Among our prominent novelists with no attempt to name them all - are . . . Julia Altrocchi, summer resident of Harbert . . . Rex Beach, of Atwood . . . David DeJong, of Grand Rapids . . . Lloyd Douglas, of Ann Arbor . . . Edna Ferber, of Kalamazoo . . . Iola Fuller, of Marcellus . . . Ernest Hemingway, summer resident of Walloon Lake . . . Helen Hull, of Albion . . . Clarence Buddington Kelland, of Portland and Detroit . . . Caroline Kirkland, of Pinckney . . . Della Lutes, of Jackson.

* * *

AND . . . HELEN Topping Miller, of Fenton . . . Arnold Mulder, of Holland . . . Arthur Pound, of Pontiac . . . Virgil Scott, of East Lansing . . . Allan Seager, of Ann Arbor . . . Vern Sneider, of Monroe . . . Glendon Swarthout, of Pinckney and East Lansing . . . John D. Voelker, of Ishpeming, a 1957-60 justice of the Michigan Supreme Court who who writes under the name of Robert Traver) . . . Mildred Walker, of Big Bay . . . Gordon Webber, of Detroit and Flint . . . Maritta M. Wolff, of Grass Lake.

Many Michigan writers have emphasized the outdoor theme in their works, drawing heavily on their knowledge of our forests and the Great Lakes. In that group are . . . James Oliver Curwood, of Owosso . . Karl Detzer, of Leland . . . Marguerite Mary Gahagan, of Johannesburg . . . Chase S. Osborn, of Sault Ste. Marie, governor of Michigan, 1911-12 . . . Harold Titus, of Traverse City . . . Stewart Edward White, of Grand Rapids.

Others are known as biographers or as writers of history and historical fiction or as recorders of our folklore, including . . . F. Clever Bald, of Ann Arbor . . . Prentiss M. Brown, of St. Ignace, U. S. senator in 1936-43 and later chairman of the Mackinac Bridge Authority . . . Bruce Catton, of Petoskey . . . Elizabeth Bacon Custer, of Monroe . . . Harlan H. Hatcher, of Ann Arbor . . . Ulysses P. Hedrick, of East Lansing . . . Ring Lardner, of Niles . . . Charles A. Lindbergh, of Detroit . . . S. L. A. Marshall, of Detroit, Russel B. Nye, of East Lansing . . . Myron David Orr, of Alpena . . . Milo M. Quaife, of Detroit . . . William Ratigan, of Charlevoix . . . Constance Rourke, of Grand Rapids . . . Arthur H. Vandenberg, of Grand Rapids, U.S. senator in 1928-51. . . Frank B. Woodford, of Detroit.

* * *

EMINENT Michigan essayists include . . . Ray Stannard Baker (David Grayson), of Lansing . . . Rev. Preston Bradley, of Linden, founder of People's Church, Chicago . . . Rev. Edgar DeWitt Jones, of Detroit . . . and several University of Michigan presidents, notably Henry P. Tappan, James Burrill Angell, Marion LeRoy Burton.

Michiganians widely known as newspaper editors and editorial writers include . . . . James O'Donnel Bennett and Carl M. Saunders, of Jackson . . . Malcolm Bingay, Lee Hills and Royce B. Howes, of Detroit . . . Col. Frank Knox, of Grand Rapids and Sault Ste. Marie . . . James E. Scripps, of Detroit . . . Chet Shafer, Three Rivers humorist and founder of the Organ. Pumpers Guild of America.

Prominent among our authors of children's books are . . . Marguerite de Angeli, of Lapeer . . . R. Clyde Ford, of Ypsilanti . . . Dirk Gringhuis, of East Lansing . . . and Elizabeth Howard, of Grosse Pointe.

REPRESENTATIVE of th Michigan contribution to the li erature of science and medicir are the works of such writer as Liberty Hyde Bailey, of Soul Haven . . . Paul de Kruif, Holland . . . William H. Hobb of Ann Arbor . . . Dr. John Harve Kellogg, of Battle Creek, founde of the famed Battle Creek Sa itarium.

Among our poets we point t Edgar A. Guest and Anne Camp bell, of Detroit . . . Theodor Roethke, of Saginaw . . . Car Sandburg, summer resident Harbert . . . Will Carleton (Wi liam McKendree), of Hillsdale . . Robert Frost, of Ann Arbor . . Gwen Frostic, of Frankfort . . Douglas Malloch, of Muskegon . . Lew Sarett, of Marquette . . Rose Hartwick Thorpe, of Litch field . . . David B. Steinma (of New York), designer of Mich igan's Mackinac bridge.

James Fenimore Cooper, wh not a Michigan native, did h research work for "Oak Openings at Kalamazoo in 1848.

And for many years the la William Lyon Phelps, beloved Ya University lecturer, literary criti and author, summered at Huro City, Mich., attracting overflo crowds regularly for his Sunda sermons in the village's Methodi church.

X-TG140
.S8

Wheeling
World-wide News and Pictures

News-Register
Neighborhood News of a 250,000 Community

SUNDAY MORNING, MAY 8, 1960

Bridge Builder Speaks at Bethany

Science, Religion, Art Pillars of Civilization

Science, Religion and Art are the three main pillars of civilization, Dr. David B. Steinman, noted bridge builder from New York City, said Saturday, May 7, at Bethany College.

Dr. Steinman spoke at the fifth annual spring festival of the school. Bethany College conferred the honorary degree of Doctor of Fine Arts upon Dr. Steinman. Dr. Perry E. Gresham is the president of Bethany College.

Dr. Steinman dean of American bridge builders, has designed and built more than 440 bridges on five continents, including Michigan's Mackinac bridge. He is the author of 24 books, including "Famous Bridges of the World." He has written 600 professional articles. More than 150 of his poems have been published in leading poetry magazines and in five anthologies, and he has received more than 60 prizes, awards, and honors for poetry.

Dr. Steinman said that "The complete man has three dimensions: the intellectual, the aesthetic, and the spiritual. These are the three divine gifts that exalt Man above the beasts of the field.

"The intellectual dimension is characterized by the passion of curiosity and communication, the impelling drive to find the answers to the questions 'How?' and 'Why?' The scientist, the philosopher, the mathematician, dedicate their lives to the search for truth.

"The aesthetic dimension is characterized by the emotions aroused by the perception of beauty and by the passion to create beauty. This is the dimension represented by the inspired works of artists — the painters, sculptors, composers, and poets. These are the works that enrich our lives."

X-TC140
.S8

THE Bulletin
OF THE NATIONAL ASSOCIATION
OF SECONDARY-SCHOOL PRINCIPALS

February 1960

RATIGAN, WILLIAM. *Highways Over Broad Waters.* Grand Rapids 3: Wm. B. Eerdmans Publishing Company, 255 Jefferson Ave., S. E. 1959. 360 pp. $6. This major biography is the definitive life story of the greatest bridgebuilder in history, a contemporary figure who personifies the technical skill, spirit of adventure, and creative imagination of America. An intimate, step-by-step account of genius in action, the book traces the career of David B. Steinman, Manhattan-born son of immigrant parents, from the days when the shadows of Brooklyn Bridge falling across his cradle were truly the forecast of coming events—the more than 400 bridges he was destined to build on five continents.

As a seven-year-old newsboy, David B. Steinman dreamed of building a great bridge such as the one on which he hawked his paper—the Brooklyn Bridge—and he lived not only to see his dreams come true, but also to see his own name engraved on a bronze tablet affixed to the very bridge of his boyhood dreams, as a memorial of his having modernized the old horse-and-buggy crossing into a thoroughfare for today's automobile traffic.

X-TG140
S8

Professional Engineer

August 31, 1959

Dr. David B. Steinman, distinguished engineer, receiving the Gold Medal of the Americas from Frederick Mardus at a luncheon tendered to him by the Chamber of Commerce of Latin America, Hotel Plaza, New York.

Mackinac Bridge Wins Award

The American Institute of Steel Construction has announced that the Mackinac Bridge, spanning Mackinac Straits in Michigan, has received the top award in the annual competition to choose the most beautiful bridges in America. The Board of Judges included four eminent architects and one engineer, William H. Wisely, Executive Secretary of the American Society of Civil Engineers.

In a speech at the time of the groundbreaking ceremonies in 1954, Dr. D. B. Steinman, designer of the bridge said: "No effort will be spared to make the Mackinac Bridge the finest, safest and most beautiful bridge in the world."

The Mackinac Bridge is the ninth Steinman bridge honored in the annual artistic bridge awards.

William Ratigan, whose best-selling historical novel "Soo Canal" vividly recreated the life of Charles T. Harvey, builder of the famous Soo Canal, has now written a most fascinating book in which he presents the life of Dr. David B. Steinman, designer and chief engineer of the greatest bridge in the world, built only fifty miles below the canal that has no equal on earth.

The title of this exceptionally well prepared and most interesting book is "The Long Crossing." It is an epic of bridge building on every continent except Africa, the biography of the engineer who has more long-span bridges to his credit than any builder in history. An inspirational book for young people.

CLEVELAND PLAIN DEALER

CLEVELAND, FRIDAY MORNING, JULY 1, 1960.

American Firm Gets Lisbon Dream Job: Span on Tagus

LISBON (Reuters) — One of the great dreams of the people of Lisbon, a bridge across the River Tagus, is to come true in the next five years.

The council of ministers has awarded provisionally a contract for the work to an American firm, the United States Steel Export Co. The final award will be made when actual building plans have been submitted by the firm and approved.

The maximum time allowed for the execution of the work is 4½ years from the date of the signature of the final contract.

The plans for the bridge were drawn up by an American engineer, D. B. Steinman, who designed some of the world's largest bridges and originated a revolutionary theory for suspension bridge computations.

The bridge is intended for road traffic. But the possibility is being considered of building the main parts of it in accordance with the requirements of railroad transport, so it will be possible to adapt it to subsequent rail traffic.

The cost of the tender on which the adjudication was fixed was 1,764,000,000 escudos (about 70 million dollars). But this amount will be subject to adjustments, in accordance with the various conditions to be set down in the contract.

The scheme will be financed entirely by means of external credits as provided in Portugal's development plan, through the Export-Import Bank of Washington, and the house of Seligman & Cie., of Paris. The charges resulting from this are to be met from the income from the bridge tolls, within the convenient regime of progressive return annuities.

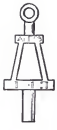
Exploitation of the bridge will be guaranteed by the state, either directly, or through an enterprise, in which the state will participate.

The bridge now tendered for will have features similar to the large North American suspension bridges, and will be the largest European bridge, and the fifth largest bridge in the world, in so far as the main dimensions are concerned.

The central span will be about 3,316 feet long, measured between the axes of the two anchor towers of the ropes supporting the bridge road. The two side spans each will be about 1,342 feet long. The towers will be about 735 feet above the level of the rock foundation in the river bed.

The viaducts on the two banks of the river will increase the total length of the bridge to nearly two miles. The contract will include the building of roads giving access to the bridge over a total distance of

APRIL 1960



THE BENT of Tau Beta Pi

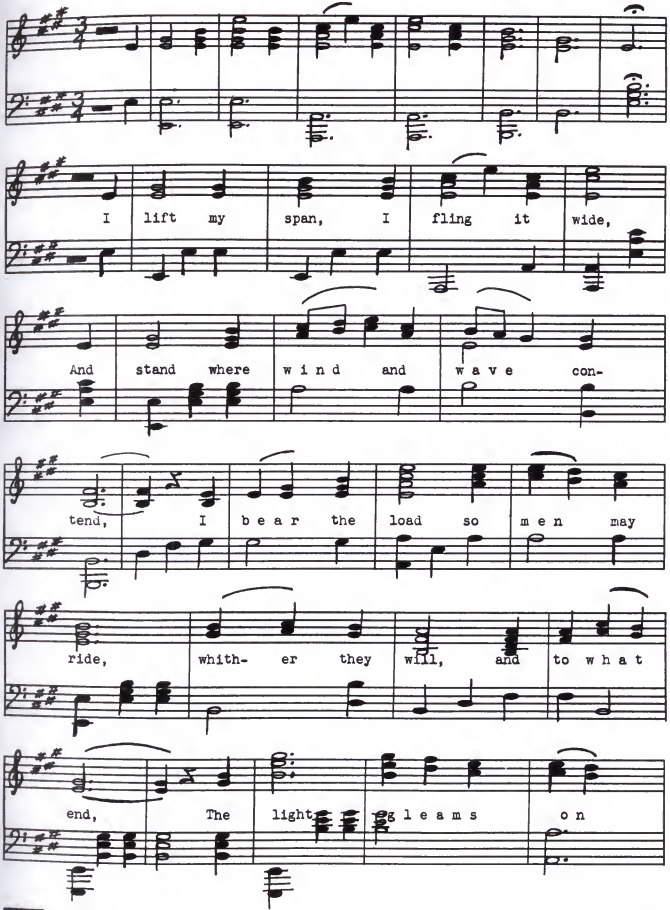
New Book on Dr. Steinman

Dr. David B. Steinman, New York Alpha '06, is the subject of a new biography by William Ratigan titled "Highways Over Broad Waters." The book is published by William B. Eerdmans Publishing Company, Grand Rapids, Michigan. Dr. Steinman, born and raised on New York's East Side, is recognized as probably the world's leading authority on the design and construction of bridges. His work is represented by major bridges in many countries, and he has received countless honors for them.

Manuscript sample copy
for Dr. David B. Steinman,
from Hazel V. Smith,
April 18, 1960

The Bridge

David B. Steinman — Hazel V. Smith



NUMBER 1
12 Stave Medium
Printed in U.S.A.

San Francisco Chronicle
THE VOICE OF THE WEST
THURSDAY, MARCH 17, 1960

Gate Bridge Can Hold Trains, Engineer Says

The Golden Gate Bridge is sturdy enough to carry commute trains under its main deck, the Bay Area Rapid Transit District was told yesterday.

D. B. Steinman, New York consulting engineer hired to make a $50,000 study of the possibility of using the bridge for trains, said tracks could be placed under the center of the roadway.

"The appearance of the structure would be scarcely changed," Steinman reported. "Traffic would be relatively uninterrupted during construction."

Steinman said the bridge could hold four 10-car trains at a time, with 74 standees in each car.

He recommended that the bridge railings be replaced with lighter material and that the sidewalks be narrowed to reduce weight.

Few structural changes would be required, Steinman added, except for a "major change" at the Marin end. New braces under the roadway also would be needed.

The next step Steinman recommended was the construction of a new model of the bridge for wind tunnel tests.

TECHNOLOGY and CULTURE

Business Notes

A full report of the Annual Meeting of the Society, held at the Museum of Sciences and Industry on Monday, December 28, is contained in the Newsletter recently sent to all members. In addition to the routine business of the Society, there was the special election of officers caused by the untimely death during the year of Dr. William Fielding Ogburn, the renowned sociologist and first President of the Society.

To succeed Dr. Ogburn, the Society unanimously elected Dr. David B. Steinman, the master bridge-builder, who is responsible for the construction of over 400 bridges on five continents, among them the recently completed Mackinac Bridge. He has received many awards for his research on the aerodynamics of bridge structure and the application of metallurgical developments to bridge construction, and is the possessor of over twenty honorary degrees from American and European universities. His next project, which he believes to be the most inspiring of his career, is the designing of a new span across the Messina Straits, linking the mainland of Italy and Sicily. Dr. Steinman is a poet and patron of the arts as well as an engineer.

Elected First Vice-President was Dr. Lynn White, Jr. After serving as president of Mills College for fifteen years, Dr. White returned to the teaching life in 1958 as Professor of Medieval History at the University of California (Los Angeles). He has written and edited books and articles in the fields of education, medieval history, and technology, and his monumental study on medieval technology and social change is scheduled for publication soon.

THE TOWER

The Poets of the Niagara Peninsula

TRANSFIGURED CITY

Leaving the Western plains, we wing our way
Above the billowed cumulus that shrouds
The checkerboard below. At dusk of day
We glimpse our goal and swoop down through the clouds.

With catch of breath, we suddenly behold
A web of roadways strung with jeweled light,
Festoons of rubies, emeralds, and gold,
Like fabled Baghdad of enchanted night.

And in the glow the flashing gems impart
To domes of glass and steel, to tower and spire,
One feels the pulsing of a mighty heart:
This Queen of cities, robed in lambent fire.

D. B. Steinman

April 1960

INTERNATIONAL CONSTRUCTION REPORTER

TURKEY

CONSTRUCTION

BIDS ASKED: Prequalification Date: 5/16/60-CONSTRUCTION of the BOSPORUS BRIDGE, Istanbul, Turkey. Only bids from prequalified contractors will be considered by the General Directorate of Highways which is calling for bids on a unit price basis. Construction will be in accordance with the plans and specifications prepared by: (D.B.Steinman, 117 Liberty Street, New York, N.Y.) consulting engineer. Main features of the work include the construction of a high-level four-lane highway suspension bridge over the Bosporus between Ortakoy and Beylerbeyi with a main span of 3091 feet and two equal side spans of 65[illegible] feet each and ancillary work. The two arched steel towers will be supported on piers sunk 100 feet below the water. Obtain instructions for bidding and prequalification statement forms for the project from the consulting engineer or: (Karayollari Umum Mudurlugu, Tuna Caddesi, Yenischir, Ankara, Turkey) free of charge. Contractors desiring to bid should have completed or be in the process of completing similar works, should own heavy equipment necessary for the job, should have completed foundation work under water, etc. in the past 15 years. The prequalification statement should be delivered to the Directorate of Highways at the above Ankara, Turkey address by May 16, 1960. The qualified contractors will be sent notices to bid and will receive bidding documents free of charge. The bid-date will be stated in same. Est.cost: $50 million.--ICR File #B-364.

May 9, 1960

TRIANGLE REVIEW

Sees Heavy Highway Use Ahead

When asked by the editors of *Esquire*, "What changes will the sixties bring?" DAVID B. STEINMAN NATIONAL HONORARY, replied in the January, 1960 issue:

"The continuing phenomenal growth of highway traffic will create both the need and the economic justification for new record-breaking bridges over water barriers that have hitherto challenged both engineering skill and economic feasibility. A number of great bridges are already in the stage of planning or construction.

"The first intercontinental bridge (joining Europe with Asia) will span the Bosporus at Istanbul, with a main span of 3,100 ft.

"Construction has already commenced on a highway suspension bridge over the Firth of Forth in Scotland. The main span will be 3,000 ft. the longest in the world outside of the United States.

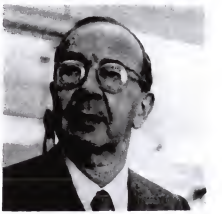
"A suspension bridge, with a main span of 3,280 ft. is planned to be built by 1965 over the Tagus River at Lisbon, Portugal.

"The proposed Narrows Bridge between Brooklyn and Staten Island will have a record-breaking span of 4,260 ft.

"Another suspension bridge of the same record-breaking span length of 4,260 ft. is to be built at Kobe, Japan.

"Preliminary plans have been made for a highway and railway suspension bridge to be built across Messina Strait, to connect Italy and Sicily. The 5,000-ft. main span will be the world's largest."

Brother Steinman's views appeared with those of more than 40 other nationally and internationally famous people.



Brother Steinman

The BROOKLYN ENGINEER

ACCOMPLISHMENT

May 1960

DAILY NEWS
NEW YORK'S PICTURE NEWSPAPER®

MAY 9, 1960.

Bethany Honors Bridge Builder

Bethany, W. Va., May 7 (AP). —Dr. David B. Steinman of New York, noted bridge builder, was awarded an honorary degree of doctor of fine arts at Bethany College here today. He is the author of 24 books, including "Famous Bridges of the World."

Ogdensburg Journal

OGDENSBURG, N. Y., MARCH 5, 1960

SLU Arts Festival To Start Mar. 8

Canton — The third annual David B. Steinman Festival of the Arts will begin on the St. Lawrence University campus on Tuesday morning, Mar. 8. The festival, featuring varied programs in the arts, will continue through Wednesday, March 16.

Opening the festival on Mar 8 will be the annual festival awards convocation at which student prizes and awards will be given for excellence in the creative arts. Dr. Eugene G. Bewkes, president of the University, will preside at the convocation, scheduled for 11 a.m. in Gunnison Memorial Chapel.

The following evening the first of three performances of Arthur Miller's "Death of a Salesman" will be presented by the Mummers society. The play will be given also on Thursday, Mar. 10, and Friday, Mar. 11. Curtain time for all performances is 8:15 p.m. in Laurentian Hall.

On Thursday afternoon, Mar 10, Rey de la Torre, classic guitarist, will present a concert in Dean-Eaton Hall Lounge at 4 p.m.

A foreign film will be shown on Saturday afternoon, Mar. 12, as part of the festival program. The film, "Umberto D", is scheduled for 1:30 p.m. in Laurentian Hall. It is being sponsored by the University's Student Union.

On Sunday afternoon, Mar. 13, Sean O'Faolain, prominent Irish short story writer, will lecture on "The Pleasures of Fiction" in Gunnison Memorial Chapel at 2:30 p.m.

The final event on the Steinman festival program is the festival concert on Tuesday evening, Mar. 15. The concert program includes Schubert's "Mass in E flat", presented by the Festival Chorus with soloists, and Mozart's "Concerto for Piano and Orchestra. K. 386a" featuring Professor James W. Hutchinson, pianist, and the University Chamber Orchestra, under the direction of Professor Richard S. Saylor. The concert is scheduled for 8:15 p.m. in Gunnison Memorial Chapel.

Running from Wednesday, Mar. 9, through Wednesday, Mar. 16, will be two art exhibitions. The first, an exhibition of paintings and drawings by St. Lawrence University students, will be on display each afternoon from 2 to 5 p.m. in Dean-Eaton Hall. The second, a loan exhibition of twentieth-century paintings from three New York City galleries, will be on view in Dean-Eaton Hall Lounge each afternoon at the same hours.

The arts festival bears the name of one of the world's great bridge designers, Dr. David B. Steinman. Through annual grants he has sponsored the festival each year since 1958.

X-TG140
S8

MOMENT OF SPLENDOR

Evanescent
As a crescent
of the moon,
As fireflies hover
glimmering over
a blue lagoon,
Love is a tender
moment of splendor,
dying too soon.

—D. B. Steinman
New York, N. Y.

The Poesy Book

Mansfield, Ohio

All Seasons Edition

X-TG140
.S8

The Barn Door

By D. B. Steinman

"Hi, young feller, want to see
Something you ain't seen before?"
The old man led me through his barn
And then rolled back a sliding door.
Behind us, musty timbered gloom;
Before us — apple trees in bloom!

The dawn glow lent an aura to
The orchard under springtime light;
Soft blossoms covered every bough
Like gentle snowflakes caught in flight.
Faint apple breath borne on the air
Whispered the lure of nectar there.

A spell was traced against the blue,
The inscape of a veil so spun
Of petals, air and light and dew.
"Ain't that a pretty sight, my son?"
He understood my speechless nod,
My silent thanks to him — and God.

Reprinted from
The Hoosier Challenger

X-TG140.C1
#292

X-TG-140
SE

Two Poems

By D. B. STEINMAN

. . . Engineer
Designer of Bridges
Poet
Man of humble faith

LIGHT-YEARS

Through cosmic space the lens on Palomar,
Scanning the aeons of galactic glow,
Descries the ancient flaming of a star
Whose rays ten million centuries ago
Commenced their journey with the speed of light,
At length impinging on our crystal prism,
Although the source may now be black as night
Or vanished in some titan cataclysm.

With powers wrested from the atom's core,
Our priests of science batter heaven's gate.
Who knows what doom will be the final score,
What holocaust or glory be our fate?
Upon some star a future eye may see
The light we beam into eternity.

CELESTIAL BLUEPRINT

To sage and poet, scientist and seer,
The ordered orbits in the firmament
And in the atom's microcosmic sphere
Attest this world is not an accident.

Inspired to scan, the mind of man descries
A cosmos governed by profoundest laws;
The harmonies that sing in starry skies
Are ringing amens to a Primal Cause.

In reverence the searching eye can see
A universe of preconceived design.
Creation of this vast sublimity
Proclaims an Author, all-wise and divine.

Reprinted from
PARTNERS
The Magazine of Labor and Management

X-TG 140
S8
#304

THE ST. LAWRENCE UNIVERSITY
CANTON, NEW YORK

OFFICE OF THE PRESIDENT

5 November 1959

Dr. D. B. Steinman
Roebling Building
117 Liberty Street
New York 6, New York

Dear Dr. Steinman:

We have awarded the Holton D. Robinson Scholarship to an unusually attractive and brilliant student. This young man came to my attention some months ago. His name is Zafirios N. Zafiris and he came to this country to get an education. His father is dead and his mother and other members of the family are still in Greece.

This boy last year was carrying a full schedule of college work and in the evening was the chef at the Town House, a restaurant in Potsdam. He hitchhiked back and forth between Canton and Potsdam, a distance of eleven miles. He was not only paying his bills, but was sending some money to his mother in Greece. The Mathematics and Physics departments and Dean Romoda called my attention also to this young man. I have also had talks with this lad. His record here for the past two years is such that thePhysics department recommended him to the Brookhaven Laboratories for special work there last summer. We think he is going to be an outstanding young scientist -- possibly even more brilliant than Mary Jean Scott, who was graduated from St. Lawrence about five years ago, then took her Ph. D. in Physics at Johns Hopkins and was selected as one of three outstanding young American physicists to be at the Harwell Nuclear Laboratories in England last year.

You will presently receive a letter from Mr. Zafiris and at some time later on I should like to arrange for Mr. Zafiris to meet you and thank you personally. I am sure it will give you great satisfaction to have some part in the education of this remarkably promising young American scientist. I say American because this young man is in the process of becoming an American citizen and will be by July 1960.

Shortly I will write you another letter about the possibility of continuing the Steinman Festival, which has been such an outstanding success here in the past two years.

Warm personal regards to Mrs. Steinman and you from Mrs. Bewkes and me.

RECEIVED
NOV 9 1959
D. B. STEINMAN

Cordially yours,

Eugene G. Bewkes

X-TG140
.S8

Foretaste

By D. B. Steinman

Romance at sixteen is a shimmering haze
Where lovers wander in a dreamlike daze;
And grief at twenty is a falcon's gash,
The bolt of passion like a thunder crash.
Only to abiding love is given
A foretaste of the wonder that is heaven.

Reprinted from
The Blue River Poetry Magazine

X-TG140.S8
#305

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BLUE RIVER
ANTHOLOGY
VOL. XXVII

FOLKS

I stand so long outside Yo' do',
I'se tired of dis world of sin;
Mah back done ache, I'se hungry and po':
O Lawd, please let me in.

I cain't help mah skin am black;
'Cause I'm cullud, no place fo' me.
Dey makes me tote a heavy pack
While dey talks equality.

De Lawd make diff'unt folks His way,
Like de birches, pines an' oaks.
De preacher tell dat de Good Book say:
All God's chillun is folks.

I cain't carry mah mis'ry no mo';
Cain't change de culluh of mah skin.
I stand so long outside Yo' do',
O Lawd, please let me in.

D. B. Steinman

X-TG140
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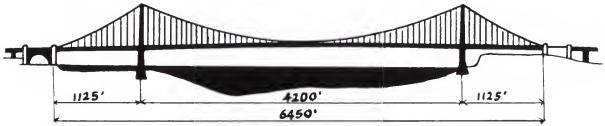
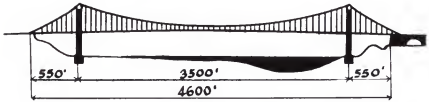
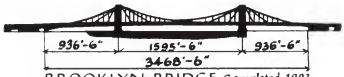
MACKINAC STRAITS BRIDGE *completed 1957*



GOLDEN GATE BRIDGE *completed 1937*



GEORGE WASHINGTON BRIDGE *completed 1931*



BROOKLYN BRIDGE *completed 1883*

SONGS OF A BRIDGEBUILDER

Comments of Interest

"Being a layman in your field, I have only seen bridges as structures of utility. NOW, I see them as the fulfillment of a poet's dream---- and they become to me creations of beauty!"

— C. O. Anderson

"There seems to be no limit to your varied talents as a writer, and these poems are certainly inspirations."

— John Ward Beretta

"I have enjoyed reading these verses and wish that more of our engineers could see the poetry in design, even if they could not express it as well as Steinman."

— Homer T. Borton

"It is a lovely volume, not only physically, but filled with your own particular brand of beauty!"

— Joseph Cherwinski

"I read it through at one sitting. Herein are preserved the things beyond price, the unassayable riches which are the essence of civilization."

— Jean C. Donaldson

"I am delighted that representatives of the engineering profession are able to achieve distinction in fields that are not usually associated with such practical problem-solvers."

— R. G. Folsom

"I don't know of any works so sensitive and moving."

— Bertha Foster

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HIGHWAYS OVER BROAD WATERS

Comments of Interest

"This is a fine record of a life devoted to the engineering profession and the public good."

— George W. Burpee

"It is a distinguished book about a very highly distinguished man."

— Thomas C. Desmond

"This work is indeed a glorious account of the faith, perseverance and gifts of a Master Bridgebuilder... of faith in his God, his fellowman, and in his own capabilities."

— Sister Mary Angela Diffley
D. H. M. D. S. B.

"It is obvious at first glance that the book has been written in a most fascinating manner and anyone interested in civil engineering will undoubtedly enjoy reading this history of the accomplishments of one of our most outstanding designers."

— R. C. Goodpasture

"So I class you (D. B. Steinman) with Winston Churchill and several of the others who live rich full lives and always find time for many and varied pursuits."

— John W. Johnson

"What a saga and what nostalgic memories! As a success story of a little boy starting from scratch, it should be in every library as a stimulus and inspiration for the young."

— Elias Lieberman

"The contributions to the safety and convenience to mankind, the contributions to the profession in lifting the scientific level of engineering and the contributions to community life delineated in this work represent the highest ideals of the profession."

— F. J. Maher

"This book will be an inspiring and educational work that all ambitious men can study and profit by."

— Ronald B. Smith

X-TG 140
S8

You Wore A White Gardenia

By D. B. Steinman

I met you in a garden by the sea;
With pulses pounding, I beheld you there.
Your loveliness was like a melody:
You wore a white gardenia in your hair.

My heart was singing with a strange delight;
To all the gods of love I made my prayer.
My dreams embraced you through the starry night,
A fragrant white gardenia in your hair.

All else about the distant scene is dim,
All save the moonlight magic in the air;
One memory still lingers like a hymn:
A white gardenia star-like in your hair.

A lighted candle burning through the years,
I feel your glowing presence everywhere;
In lonely nights I see you through my tears:
You wore a white gardenia in your hair.

Reprinted from
Hoosier Challenger

X-TG 140
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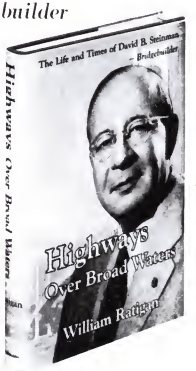
HIGHWAYS OVER BROAD WATERS

The Life and Times of David B. Steinman, Bridgebuilder



This is the stranger-than-fiction story of a lower-Manhattan boy born under the shadows of the Brooklyn Bridge. It was a young bridge at the boy's birth, only four years old itself, a new-wrought miracle of design and construction . . . . Somehow, the bridge must have cast a spell upon the boy from the moment he was born . . . . The shadows and sounds of the Bridge began to exert an influence upon him, and its lights at night became the guiding beacons of his course through life . . . .

With such lines begins the story of David B. Steinman, and through its more than three hundred definitive pages the fascinated reader discovers much more as he reads the unfolding, exciting story of a nation converting from horses and buggies and ferryboats to millions of motor cars and the great bridges that have made our modern mass transportation possible. But through it all runs the struggle, the progress, the accomplishments and the fulfillment of one boy's earliest dreams, until author William Ratigan's full-scale portrait is completed with his last lines —

In humility and reverence, in a spirit of consecration, David Barnard Steinman dedicated his life to the building of bridges, both material and spiritual. In a bridge he sees "a poem in steel and stone — a rainbow arched across the stream — God working through man to confute the forces of evil and add another stanza to the hymn of creation."

That is the faith of a bridgebuilder, the engineer of highways over broad waters.

If you have ever built or helped to build a bridge, you will thrill to this story. If you have ever crossed a great bridge thoughtlessly, you will never again do so without appreciation for its builders, for its amazing strength, its design, its beauty. For *Highways Over Broad Waters* is that unique kind of book that captures the essence of a man's life and projects it into the product of his mind and into the life of his time. Here you will discover the genius and heart of the greatest bridgebuilder in history, a poet, a lover of life and beauty, interpreted with rare empathy in a contemporary biography of a first-generation American who personifies the technical skill, the spirit of adventure, and the creative imagination which has made America great.

by WILLIAM RATIGAN

Author of Soo Canal!, Straits of Mackinac, The Long Crossing, and other books of the American Epic

Beautiful, Full Endpapers Engravings of Two of the World's Greatest Bridges

— The Brooklyn, 1883

— The Mackinac, 1958

Forty Brilliant Photographic Illustrations including a Dozen Great Bridges

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— see complete titles on other side

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DAVID B. STEINMAN
FEB 11 1960

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255 Jefferson Avenue, S. E.
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X-TG.140
S8

Kingston-Rhinecliff Bridge over Hudson River Opened to traffic February, 1957. Designed by D. B. Steinman.

D. B. STEINMAN

CONSULTING ENGINEER

BRIDGES

Design, Construction, Strengthening, Investigations, Reports, Advisory Service

117 LIBERTY STREET, NEW YORK

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WHAT CHANGES WILL THE SIXTIES BRING?

D. B. Steinman: designer of 450 bridges on five continents

The continuing phenomenal growth of highway traffic will create both the need and the economic justification for new record-breaking bridges over water barriers that have hitherto challenged both engineering skill and economic feasibility. A number of great bridges are already in the stage of planning or construction.

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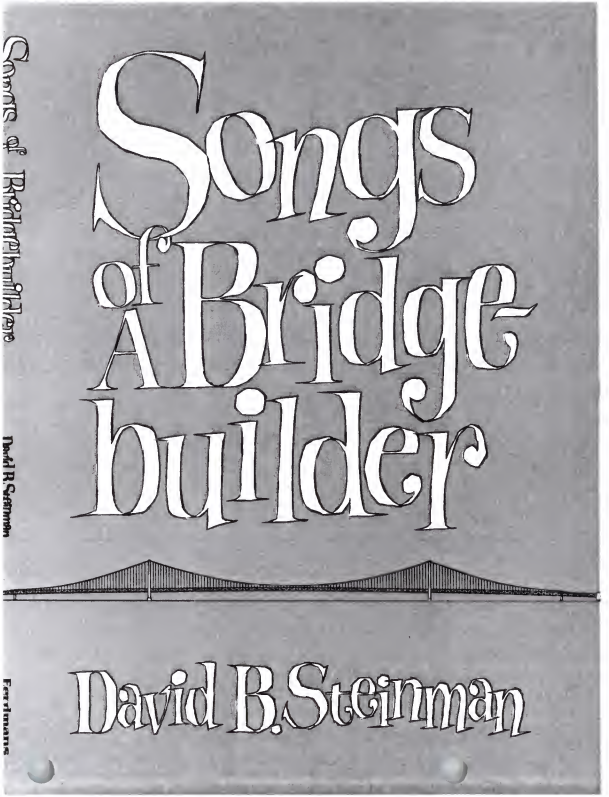


X. TG 147
.S 8

$2.00

SONGS
OF A
BRIDGEBUILDER

by
DAVID B. STEINMAN

Songs of a Bridgebuilder is an enriching collection of the author's poems which reveals another aspect of his creative talent. For David Steinman poetry has proved a delightful avocation, a rewarding pursuit. It has given him the opportunity to express his philosophy of life, to reveal his sentiments, to share his many impressions of man and nature.

Through this beautiful collection the reader may recognize the man who wrought them, a man of great constructive imagination who strives to live in accordance with the ideal set forth in Micah, chapter six, verse eight: "What doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God?"

X. TG 140
. S 8

Help Me, Lord, To Build My Span

By D. B. Steinman

Anchored firm in solid rock,
On Thy foundation let me build –
Strong to bear each strain and shock,
An arch of dreams and faith fulfilled.

Help me, Lord, to build my span
In strength and grace across the years;
Firm in purpose, true in plan,
Above the tides of doubt and fears.

Help me build on Thy high road
A bridge to serve the common good;
To smooth the way and lift the load,
A link of human brotherhood.

Help me make my work a shrine,
With glimpses of eternity;
A humble prayer in every line,
A bridge from human heart to Thee.

Reprinted from
Scimitar and Song

X-TG140.S2
H32c

Serenade

By D. B. Steinman

Across the lake the rising moon unrolls
A magic carpet made
Of shimmering brocade.
A light breeze lifts and dies. A far bell tolls
A moonlight serenade.

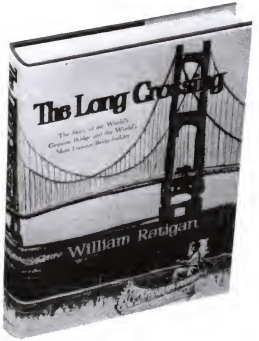
My small boat glides along the wooded shore.
The moon moves, broad and free,
And arrows straight to me
No matter where I row with muffled oar —
A moonlight melody.

Reprinted from
Poetry Public

X-TG/40
.S8

Announcing . . .

The Story of the World's Greatest Bridge and the World's Foremost Bridgebuilder



The Long Crossing

by WILLIAM RATIGAN

Illustrated by Dick Rienstra

This is the story of a newsboy who sold his papers on the Brooklyn Bridge and said, "Someday I'm going to build a bridge like that!" And he did, many times, for this is the lively, fact-packed and fast-moving story of Dr. David B. Steinman who has built hundreds of long bridges all over the world, including the world's greatest bridge over the Mackinac Straits of Michigan. It is the story of a boy and a man, of his greatest bridge and its cement and steel workers and wire spinners, of the land and waters where its sky-scraping towers are anchored, and of the young School Reporter through whom the author with fine craftsmanship has gathered all the many exciting threads of biography and history into an inspiring adventure of modern-day challenge and achievement. $3.25

WM. B. EERDMANS PUBLISHING CO.
GRAND RAPIDS 3, MICHIGAN

X-TG 140
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Syracuse University
Office of Information Services
Syracuse, N. Y.

Steinman honorary

SYRACUSE, N. Y. -- Dr. David B. Steinman, internationally known bridge engineer, will be one of six prominent men in the fields of industry, education, theology and science to be awarded an honorary degree at Syracuse University's 105th Commencement, June 1.

Dr. Steinman, who will receive a Doctor of Engineering degree, has been designing or consulting engineer in the construction of more than 440 bridges on five continents, including the world's largest bridge project, the $100,000,000 Mackinac Bridge, Michigan.

He has received eight artistic bridge awards for the most beautiful bridges in America. Among the most notable of his bridges are the suspension bridge at Florianopolis, Brazil; Carquinez Straits Bridge, Calif.; St. John's Bridge, Portland, Ore.; Henry Hudson Bridge, Thousand Islands International Bridge.

During his 39 years of private practice, Dr. Steinman has become a recognized authority on long-span bridges, design of suspension bridges and aerodynamic analysis of suspension bridges. His inventions and improvements have contributed greatly to bridge design and construction.

Recipient of 350 honors, Dr. Steiman holds the highest award of the Scientific Research Society of America for his research and inventions in suspension bridge aerodynamics and the Kimbrough Gold Medal, highest award of the American Institute of Steel Construction.

(more)

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The Upstart

By D. B. Steinman

Flung from the fingers of Omnipotence,
The shimmering clouds of stardust found their place
As whirling suns and planets, to commence
Their ordered orbits in the realms of space.

On one small orb, amid these blazing stars,
A blinking biped – Man – at length appears.
His inner light obscured by greed and wars,
He shakes his fist and covets new frontiers.

A puny creature in this vast design,
He pounds his chest and shouts: "All this is mine!"

Reprinted from
The Hoosier Challenger

THE BRIDGE AT MACKINAC

NEW NORTHWEST PASSAGE - IN MICHIGAN - A DRAMATIC STORY IN COLOR

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MACKINAC BRIDGE

WORLD'S
GREATEST BRIDGE

CONNECTING MICHIGAN'S UPPER AND LOWER PENINSULAS
AT ST. IGNACE AND MACKINAW CITY.

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Newsletter to **PARENTS**

ST. LAWRENCE UNIVERSITY

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Steinman Arts Festival Features Music, Art, Drama, Literature

Since her founding more than one hundred years ago, St. Lawrence University has prided herself as being a center of the arts in northern New York.

David B. Steinman

Last year a new vehicle for presenting programs in the arts was introduced on the campus in the form of the David B. Steinman Festival of the Arts. The second annual Steinman Arts Festival was held last month, through Dr. Steinman's generosity.

The festival bears the name of one of the world's great bridge designers. Dr. Steinman has served as designing or consulting engineer for nearly 400 bridges on five continents, the most recent of which was the $100,000,000 Mackinac Straits Bridge.

Opening the festival and continuing for three performances was a production by the University's Mummers dramatic society of Arthur Miller's play, "A View from the Bridge". During the four-day festival two showings of the award-winning film, "Rasho-Mon", were sponsored by the Student Union.

William Schuman, president of Juilliard School of Music and prominent contemporary composer, was featured at a concert of his compositions by the Laurentian Singers, including a three-part work, "Carols of Death", commissioned by the University for the Laurentian Singers. That same evening, Mr. Schuman lectured on "The Composer in America".

Also lecturing at the festival was William Jay Smith, poet and critic. His topic was "Hoaxes in Modern Poetry".

Handel's "Saul" was presented by the 150-voice Festival Chorus and Orchestra with four guest soloists and student soloists.

Running throughout the festival were an exhibition of paintings and drawings by students and a traveling exhibit.

A high point of the festival was the awards convocation in which prizes in the creative arts were awarded. Students cited at the convocation were Jonathan Amson, New York City; Wayne Phelps, Norwood; David Kilgore, Chester, N. J.; Claude Saks, Great Neck; Bonnie Payjack, Medina; Ruth Carling, Hempstead; John McGreivey, Saddle River, N. J.; Jacqueline Pitts, Wilmington, Del.; and Alberto Martin, New York City.

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Moonlight Serenade

By D. B. Steinman

Across the lake the rising moon unrolled
A magic carpet made
Of luminous brocade,
A path of silver light with flakes of gold,
A moonlight serenade.

No matter where I row along the shore,
The shimmering mystery
Still arrows straight to me,
And in the rippled glow I hear once more
A moonlight melody.

Reprinted from
Snowy Egret

#2373

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The International
Magazine Of
Science Fiction
Poetry

STARLANES

LIGHT-YEARS

Through cosmic space the lens of Palomar,
Scanning the aeons of galactic glow,
Describes the ancient flaming of a star
Whose rays ten million centuries ago
Commenced their journey with the speed of light,
At length impinging on our crystal prism,
Although the source may now be black as night
Or vanished in some titan cataclysm.

With powers wrested from the atom's core,
Our priests of science batter heaven's gate.
Who knows what doom will be the final score,
What holocaust or glory be our fate?
Upon some star a future eye may see
The light we beam into eternity.

D. B. Steinman

No. 33

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MATEMATYKA STALI I BETONU

.58

Eileen

By D. B. Steinman

She is like a timid fawn
Startled by a leprechaun;
Lithe and poised for instant flight,
Standing at the edge of night,
Where the forest meets the dawn.

She lifts her head and sniffs the air
But finds no danger lurking there;
No evil hidden in the dark,
No cruel shaft to find its mark,
For who would harm a thing so fair.

Reprinted from
The Hoosier Challenger

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BALLADS
OF
BLOSSOM TIME

WHAT HOPE REMAINS

By D. B. STEINMAN

Endowed with powers noble as his creeds,
What hope remains when man does savage things?
His bright avowals are belied by deeds:
He wars and plunders while of love he sings.

But here, before our wondering eyes, there stands
A bridge! Outsoaring gravity and space,
It rises from the waves on shining strands
To arch across the sky in lofty grace.

Seen from above, a battleship appears
Dwarfed like a toy beneath the vaulting span;
This is our triumph over ancient fears:
A bridge of peace, wrought of the dreams of man.

THE BLUE RIVER PRESS
Shelbyville, Indiana

TG140
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Tribute to the Brooklyn Bridge

By D. B. STEINMAN, *Bridge Engineer, author of "The Builders of the Bridge; The Story of John Roebling and His Son"*

On this occasion of the 75th anniversary of the opening of the Brooklyn Bridge, I am glad to record my personal heartfelt tribute to this grand old structure, not only as "The Bridge" that has been my inspiration since boyhood but also as the best known and the best loved bridge in the world.

When the Brooklyn Bridge was completed in 1883, it was the engineering achievement of the century—the longest single span ever built, the tallest and strongest, the first suspension bridge in the world to use steel cables and steel trusses. Today there are bigger bridges—but they never could have been built had not Brooklyn Bridge shown the way. And its story is still the greatest bridge-building story of all.

DREAM BRIDGE

John A. Roebling was the pioneer genius who developed the art of building great spans suspended from wire cables. In 1831 he came to America as a young immigrant, fleeing autocratic oppression and seeking freedom—freedom to work, to build, to achieve. During the years that followed he proved his talent and genius as an inventor and as a bridge-builder, inventing wire rope and building one great span after another.

In 1867 he was called to New York to plan and build his crowning lifework—the great span over the East River to connect Brooklyn and New York. For two years he worked feverishly to complete his plans, as though in a race against death.

It was to be his dream bridge—the consummation of his life's ambition. From his first sight of a small suspension span in his student days, all of his longing, all of his preparation, all of his striving, were pointed toward his goal. By iron determination, by relentless concentration, by unsparing energy, by achievement after achievement, he had won this opportunity to create the world's greatest span. And now, from his brain and his soul, combining the genius of the mathematician, the builder and the artist, he had crystallized the vision—the lines and the form, the power and the grace, the beauty and the magic—of his masterwork. He had battled and overcome the forces of doubt and prejudice, and he had finally won the right to go ahead with the building of the Bridge.

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Publicity
THE DAVIDSON PRESS
227 East 45th Street
New York 17, N. Y.

For Immediate Release

A first collection of poems by David B. Steinman, world famous bridge builder and designer, is announced for publication on October 15 by The Davidson Press of New York. The book, entitled "I Built A Bridge & Other Poems," carries an Introduction by Elias Lieberman, a vice-president of the Poetry Society of America.

Having devoted a lifetime putting poetry into bridges, Dr. Steinman decided, when he was past 60, to put bridges into poetry. That he has accomplished this feat is amply evidenced in this volume.

Among the many notable bridge structures on which Dr. Steinman was engaged as designer and consultant are the Florianopolis Bridge in Brazil, the Mount Hope Bridge in Rhode Island, the St. Johns Bridge in Oregon, the Carquinez Straits Bridge in California, the Waldo-Hancock Bridge in Maine, the Henry Hudson Bridge in New York, the Constitution Bridge in Puerto Rico, the Raritan River Bridge in New Jersey and the Kingston-Rhinecliff Bridge across the Hudson. He is now completing the Mackinac Bridge in Michigan, the world's largest bridge project ever undertaken.

Dr. Steinman is a Life Fellow of the Royal Society of Arts in Great Britain and past president of the New York Academy of Sciences. He has been honored by a dozen countries and by many universities, here and abroad. In 1953 he received the highest award of the Research Society of America for his work in suspension bridge aerodynamics and a civic medal for his work on the reconstruction of the Brooklyn Bridge.

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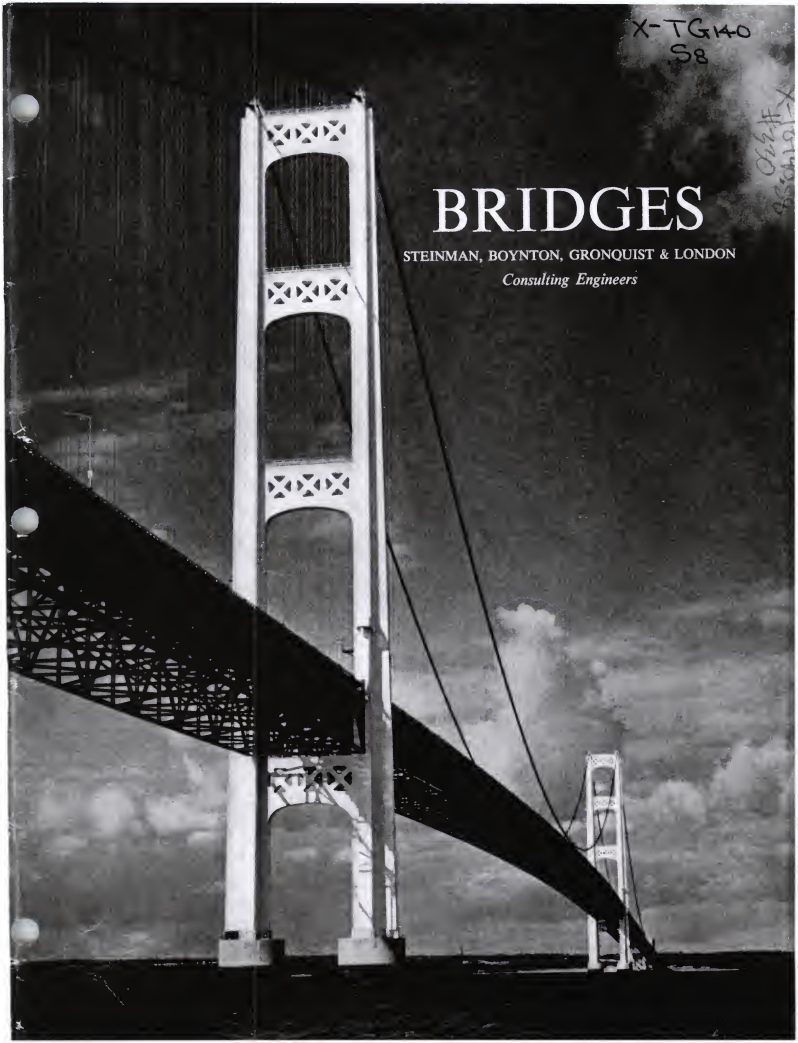
BRIDGES

STEINMAN, BOYNTON, GRONQUIST & LONDON

Consulting Engineers



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Poets' Study Club Terre Haute - Indiana

My dear Mr. Steinman:

As a member of the contest committee of the POET'S STUDY CLUB'S contest last year, I shared the pleasure of awarding you first place for your poem, BLUEPRINT. As chairman of this year's committee I had hoped to find another entry. Visualizing you as a second Hart Crane, obsessed with bridges, we hoped to see more of your work.

Last month I caught a broadcast from PURDUE UNIVERSITY'S W. B. A. A. station of readings by Carl Sandburg, and the announcement of programs to follow. I knew these would interest our group. When we learned that you were sponsor of the program, were not a youthful dreamer but a practical bridge engineer, unabashed to admit your interest in poetry to such an extent, our delight and our pleasure were beyond words. You have graciously given all the listeners a favor that will endure for many days.

Very sincerely yours,

Ruby Anne Bright

Ruby Anne Bright

The American City

MAY 2 5 1960

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DAVID B. STEINMAN, MASTER BRIDGE BUILDER

When the great hanging roadway of stone and steel that now connects the main part of the state of Michigan with its forest-covered northern peninsula was completed one day in November 1957, David B. Steinman, the designer of the new Mackinac Bridge and 400 other bridges on five continents sat back in the chair in his small New York City office and surveyed another piece of his handiwork. It was a short poem he had labored over and which he called "The Challenge." Its first paragraph read:

"Nature said: 'You cannot.'
Man replied: 'I can.'
From shore to shore, above the tides,
He built a gleaming span."

That pretty well sums up David B. Steinman's philosophy and his life. For nearly 50 years, (he is now 71), bridge-builder Steinman has been saying, "I can" to such impossible construction tasks as the Mackinac Bridge. For in spanning the five-mile (8-kilometer) stretch of water, Steinman had to construct the world's longest suspension bridge in the face of such weather hazards as 40-foot (12-meter) waves, ice banks and tornadoes. His philosophy of "I can" enabled him, in collaboration with his friend and colleague Holton D. Robinson, to enter and

- more -